Figure 1

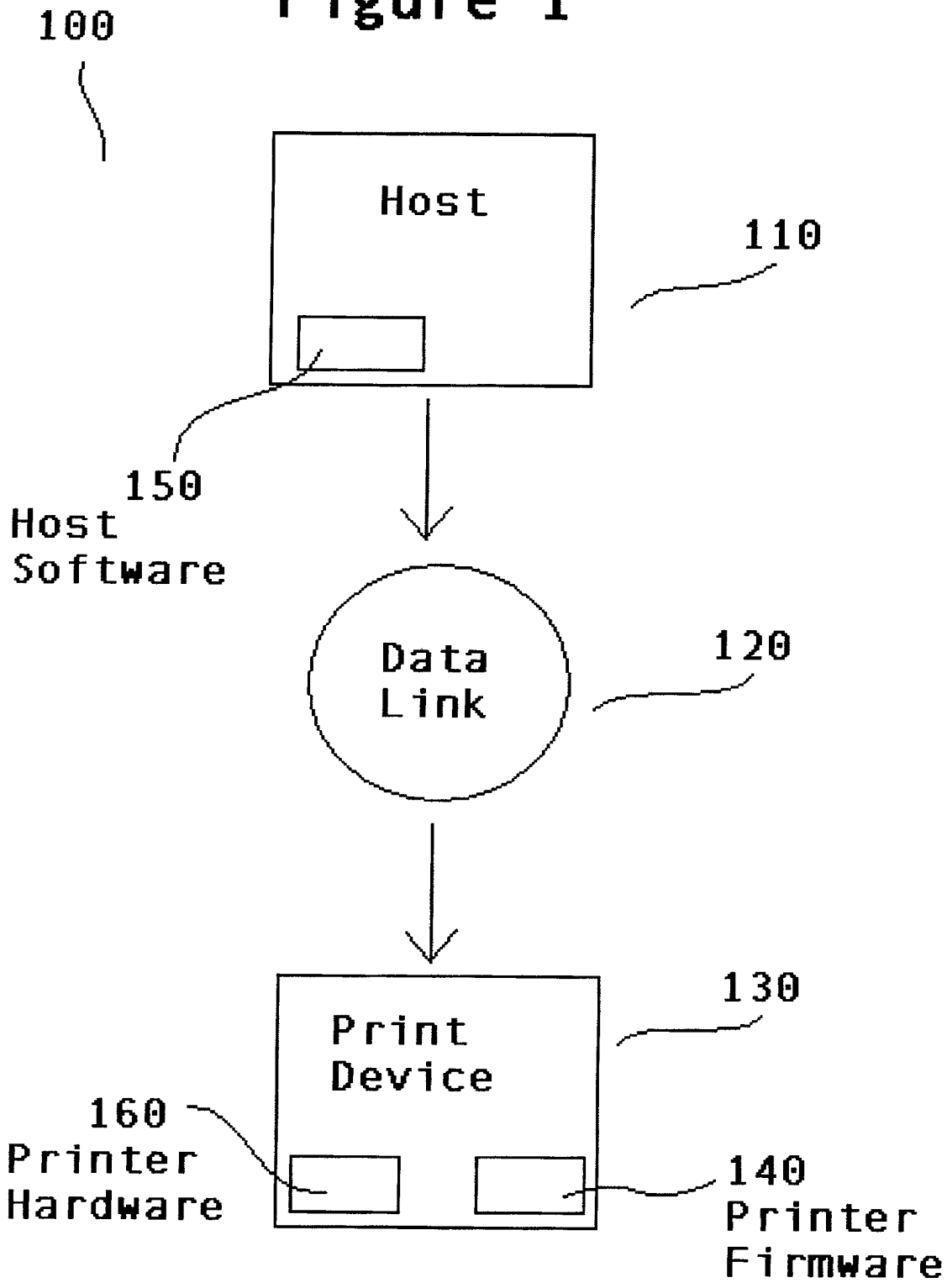

100
Host
110
150
Host
Software
Data
Link
120
Print
Device
130
160
Printer
Hardware
140
Printer
Firmware

Figure 2

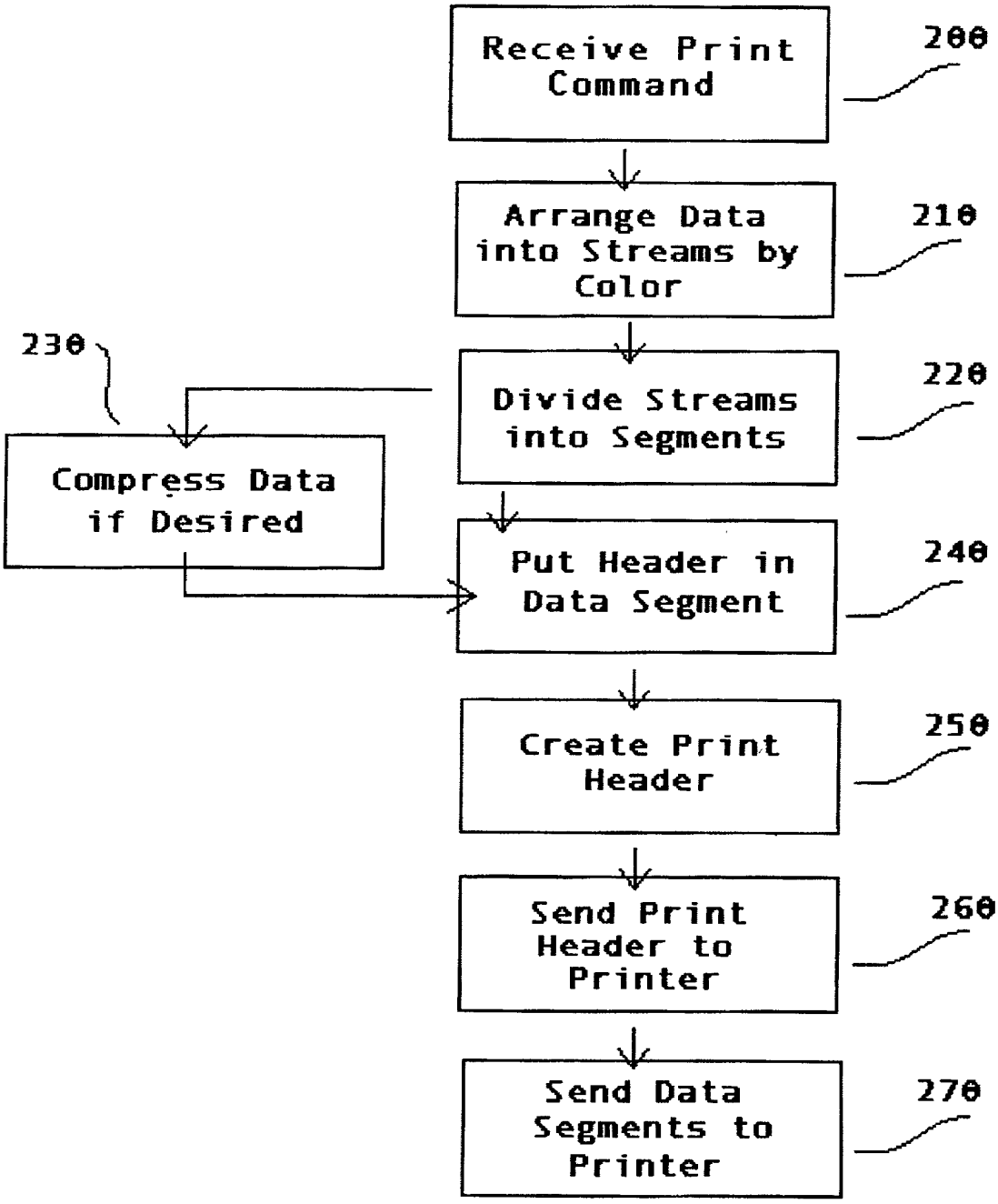
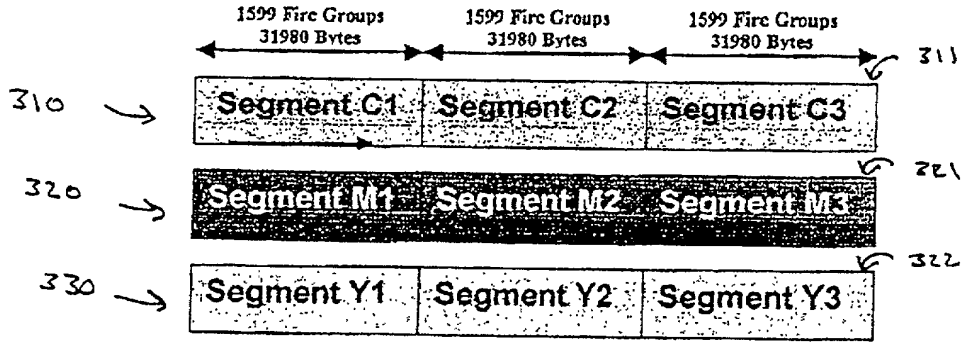

Receive Print Command
200
Arrange Data into Streams by Color
210
Divide Streams into Segments
220
230
Compress Data if Desired
Put Header in Data Segment
240
Create Print Header
250
Send Print Header to Printer
260
Send Data Segments to Printer
270

Figure 3

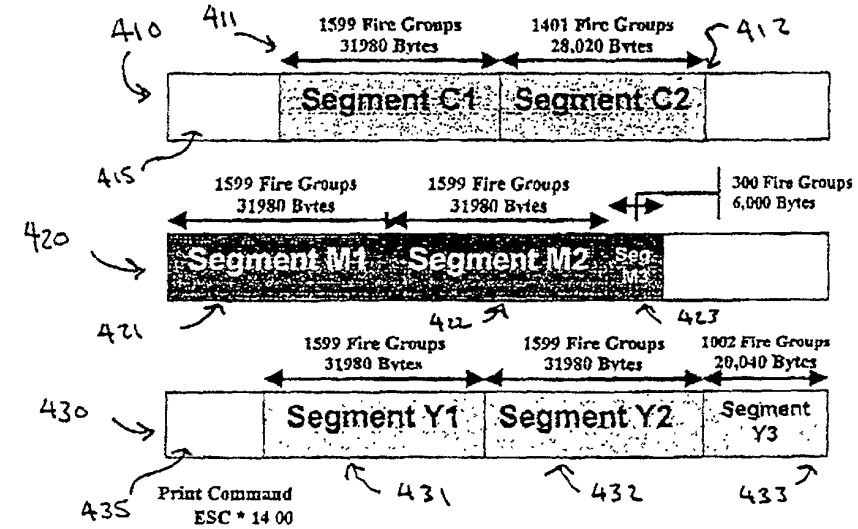
The following segments above are sent in order: C1, M1, Y1, C2, M2, Y2, C3, M3, Y3.



Print Command

ESC * 14 00
...
wStartingPosition = 0
...
wCyanFireGroupOffset = 97
wMagentaFireGroupOffset = 42
wYellowFireGroupOffset = 0
...
wCyanFireGroupCount = 4797
wMagentaFireGroupCount = 4797
wYellowFireGroupCount = 4797
...
bSegmentCount = 9
bSegmentMap = 1, 2, 3, 1, 2, 3, 1, 2, 3, FF, FF, FF, FF, FF, FF

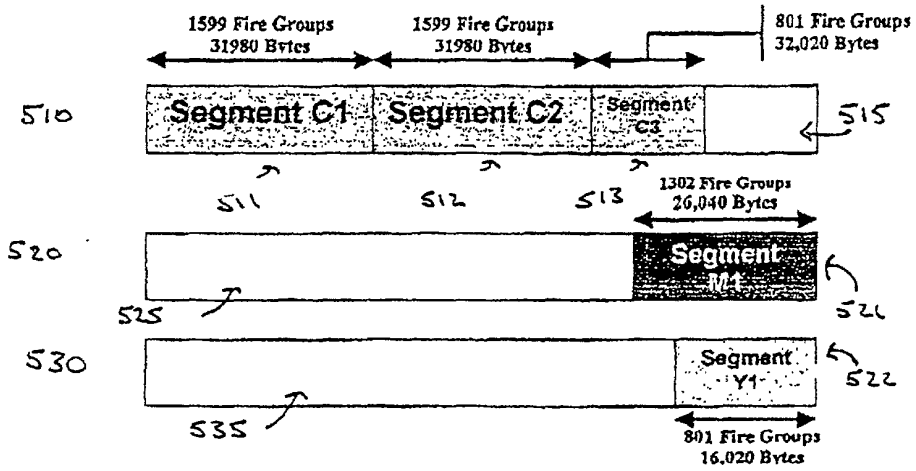
Figure 4



Print Command
ESC * 14 00
...
wStartingPosition = 0
...
wCyanFireGroupOffset = 1097
wMagentaFireGroupOffset = 42
wYellowFireGroupOffset = 600
...
wCyanFireGroupCount = 3000
wMagentaFireGroupCount = 3498
wYellowFireGroupCount = 4200
...
bSegmentCount = 8
bSegmentMap = 2, 3, 1, 2, 3, 1, 2, 3, FF, FF, FF, FF, FF, FF, FF, FF

450

Figure 5

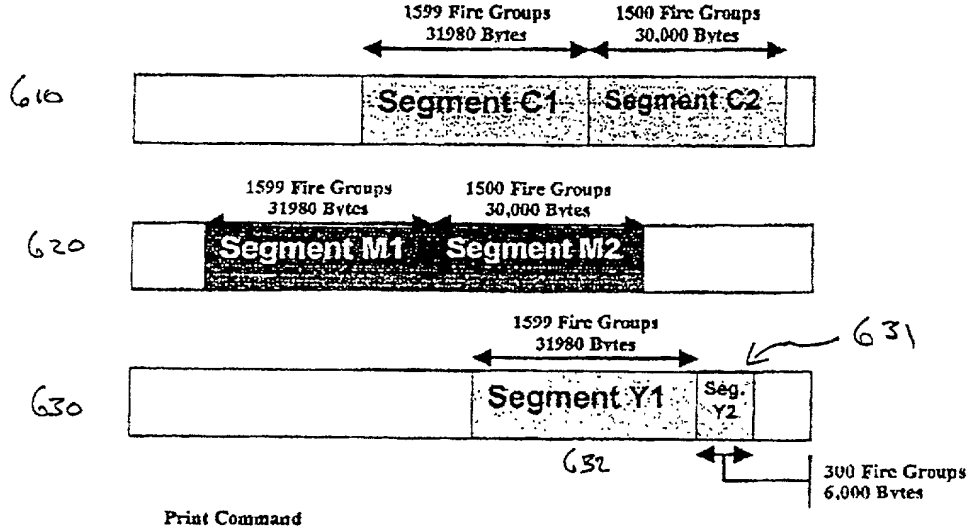


The following segments above are sent in order: C1, C2, C3, M1, Y1.

Print Command
ESC * 14 00
...
wStartingPosition = 0
...
wCyanFireGroupOffset = 97
wMagentaFireGroupOffset = 3542
wYellowFireGroupOffset = 4000
...
wCyanFireGroupCount = 3999
wMagentaFireGroupCount = 1302
wYellowFireGroupCount = 801
...
bSegmentCount = 5
bSegmentMap = 1, 1, 1, 2, 3, FF, FF, FF, FF, FF, FF, FF, FF, FF, FF

Figure 6

The following segments are sent in order: M1, C1, M2, C2, Y1, Y2.



Print Command

ESC * 14 00

...

wStartingPosition = 5600 (4800ths) (=700 Firegroups)

...

wCyanFireGroupOffset = 997
wMagentaFireGroupOffset = 42
wYellowFireGroupOffset = 2200

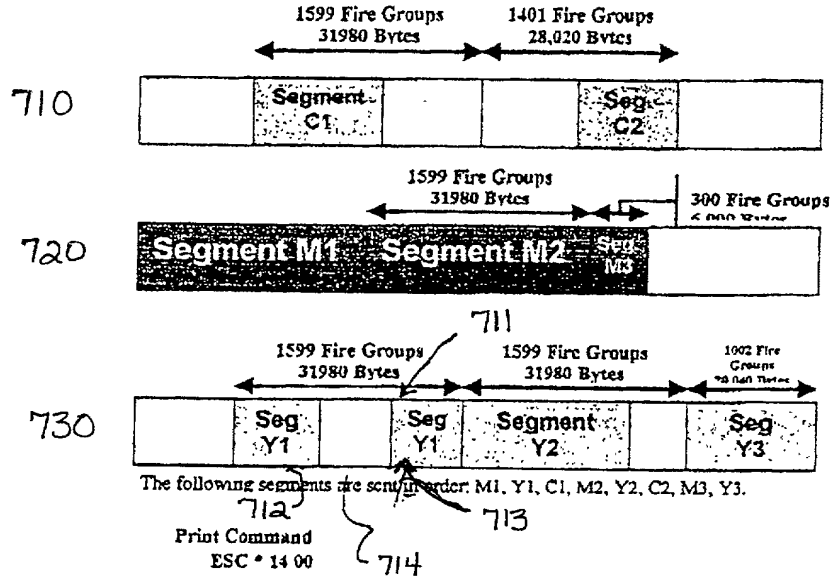
...

wCyanFireGroupCount = 3099
wMagentaFireGroupCount = 3099
wYellowFireGroupCount = 1899

...

bSegmentCount = 6
bSegmentMap = 2, 1, 2, 1, 3, 3, FF, FF, FF, FF, FF, FF, FF, FF, FF

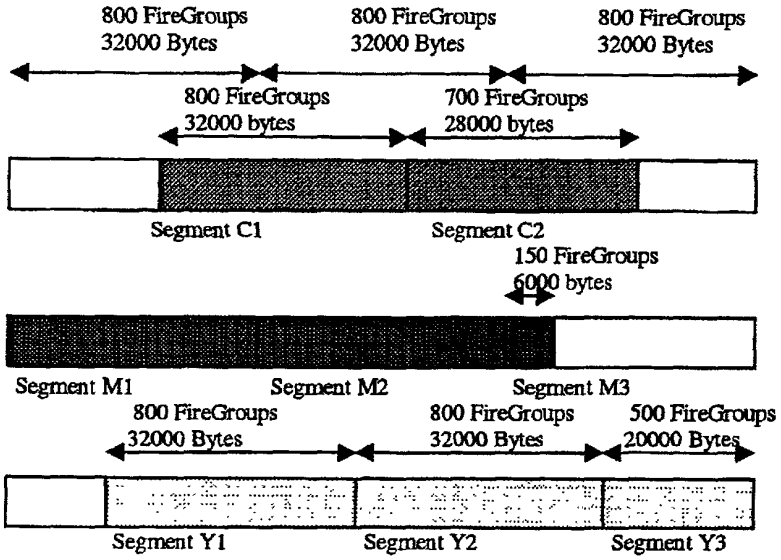
Figure 7


1599 Fire Groups
31980 Bytes
1401 Fire Groups
28,020 Bytes
710
Segment C1
Seg C2
1599 Fire Groups
31980 Bytes
300 Fire Groups
720
Segment M1
Segment M2
Seg M3
711
1599 Fire Groups
31980 Bytes
1599 Fire Groups
31980 Bytes
730
Seg Y1
Seg Y1
Segment Y2
Seg Y3
The following segments are sent in order: M1, Y1, C1, M2, Y2, C2, M3, Y3.
712
713
714
Print Command
ESC * 14 00
...
wStartingPosition = 0
...
wCyanFireGroupOffset = 1097
wMagentaFireGroupOffset = 42
wYellowFireGroupOffset = 600
...
wCyanFireGroupCount = 3000
wMagentaFireGroupCount = 3498
wYellowFireGroupCount = 4200
...
bSegmentCount = 8
bSegmentMap = 2, 3, 1, 2, 3, 1, 2, 3, FF, FF, FF, FF, FF, FF, FF, FF

DMA Alignment

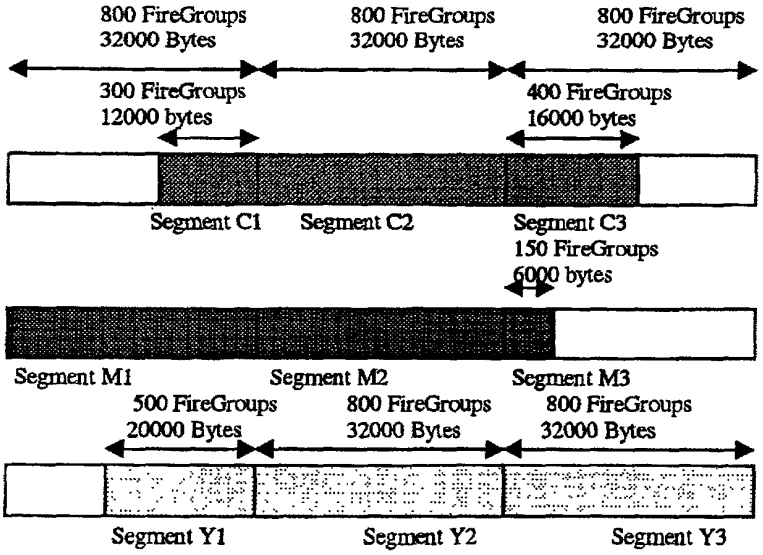
The following shows two ways the data streams may be divided into segments.

Method 1



Segments sent in the following order: M1, Y1, C1, M2, Y2, C2, M3, Y3

Method 2



Segments sent in the following order: M1, Y1, C1, M2, Y2, C2, M3, C3, Y3

Figure 8

Handling multiple compressed data streams - Transform Task

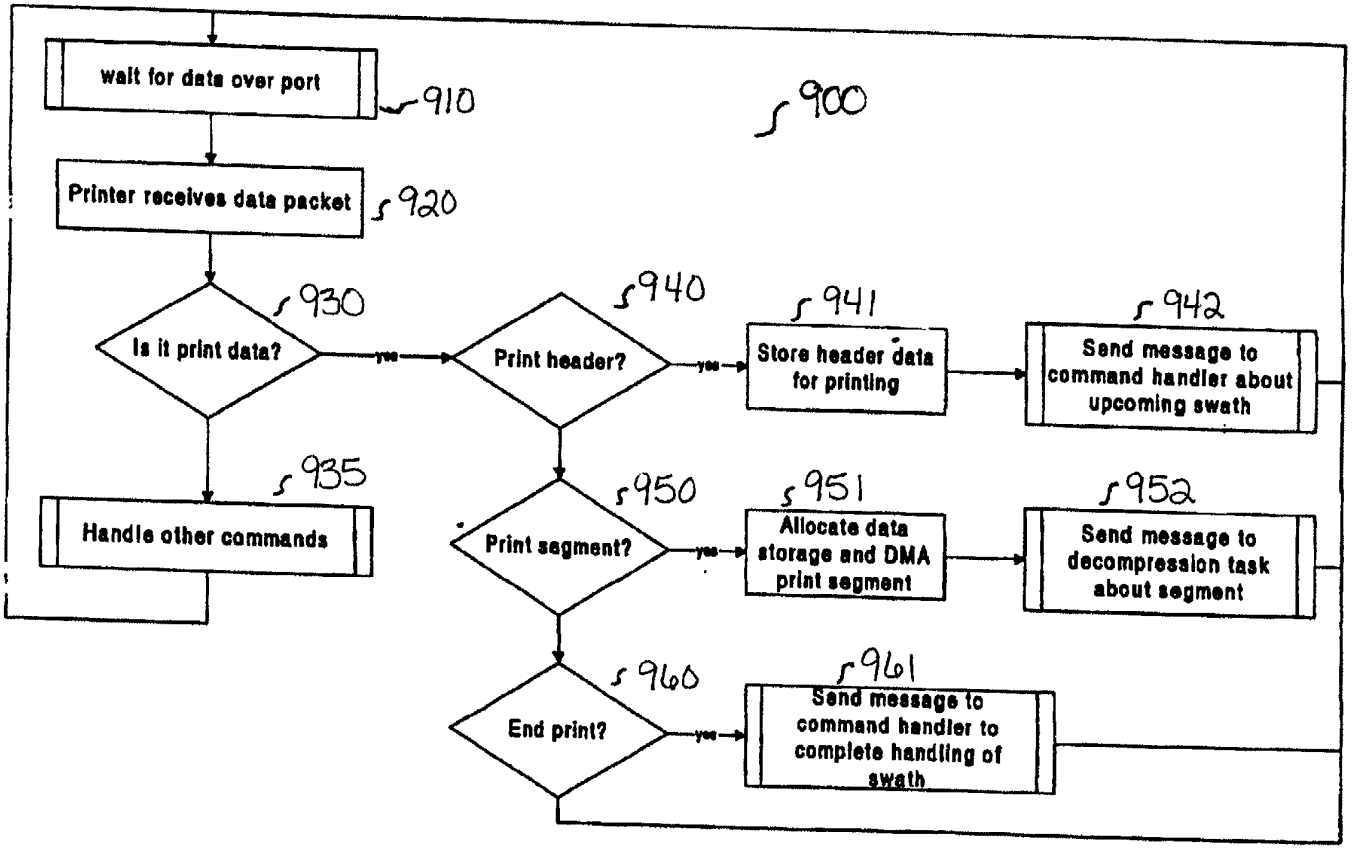


Figure 9

Handling multiple compressed data streams - Decompress Task

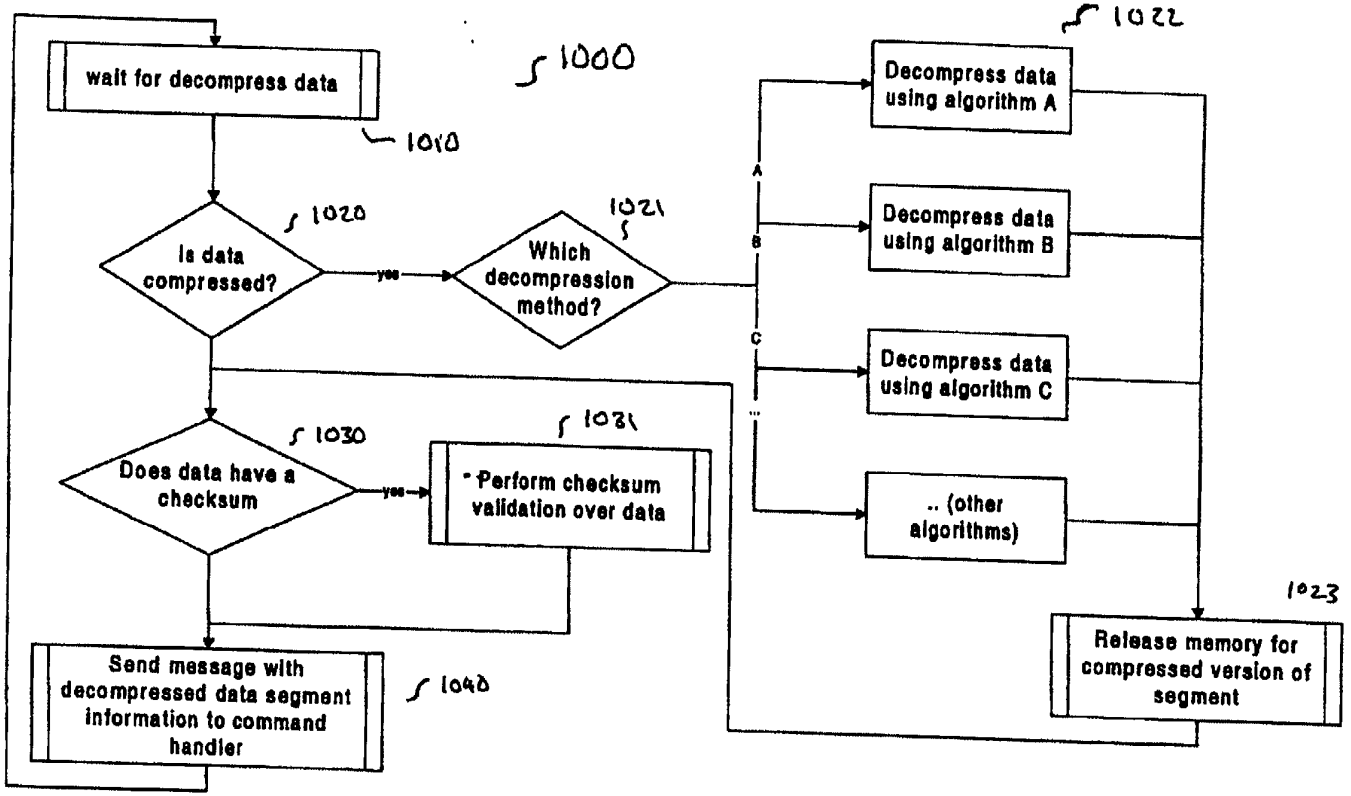


Figure 10

Handling multiple compressed data streams - Command Handler Task

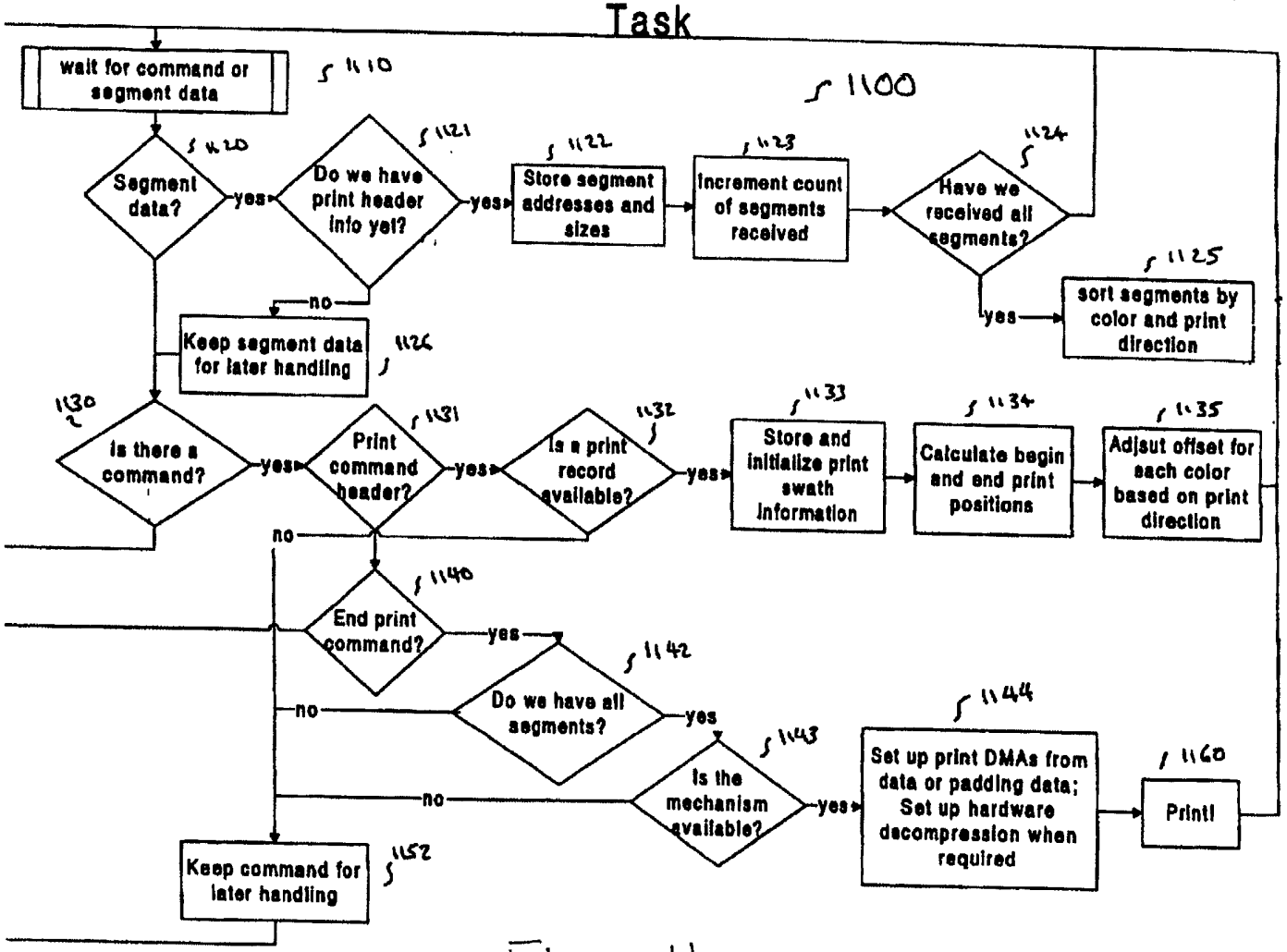


Figure 11